

AMENDMENTS TO THE SPECIFICATION

In the Specification

Please substitute the following amended paragraph(s) and/or section(s) (deleted matter is shown by strikethrough and added matter is shown by underlining):

Page 1, line 2, please add the following header:

Field of the Invention

Page 1, line 9, please add the following header:

Background of the Invention

Page 2, line 10 – line 24, please amend the specification as follows:

In a transparent material, as it is present, in particular, in laser-surgical ophthalmic methods, several processes initiated by the laser radiation take place one after another in the case of non-linear interaction. If the power density of the radiation exceeds a threshold value, an optical breakthrough is produced in the transparent material, said breakthrough generating a plasma bubble in the material. Due to ~~expending~~ expanding gases, this plasma bubble grows after the optical breakthrough has formed. If the optical breakthrough is not maintained, for example because pulsed laser radiation has been used, the gas generated in the plasma bubble is re-absorbed by the surrounding material and the bubble disappears. If a plasma is generated at a material boundary surface (which may actually be located within a material structure as well),

material removal is effected from said boundary surface. This is then referred to as photoablation, whereas in connection with a plasma bubble separating previously connected material layers one usually speaks of photodisruption. For the sake of simplicity, all such processes are summarized here by the term “optical breakthrough”, i.e. this term includes not only the actual optical breakthrough itself, but also the effects resulting therefrom in the material, caused by the non-linear interaction.

Page 3, line 1 – line 9, please amend the specification as follows:

US 5,894,916 as well as US 6,110,166 describe methods for correcting visual deficiencies by means of suitably generating optical breakthroughs in the human cornea, so that the diffractive or refractive properties of the cornea are ultimately influenced in a selective manner. By sequential arrangement of the multiplicity of optical breakthroughs, a lens-shaped partial volume is isolated within the cornea of the eye, said volume then being removed from the cornea by means of a laterally opening cut. The shape of the partial volume is selected such that the diffractive or refractive properties of the cornea are changed after removal of the partial volume to achieve a desired correction of a visual deficiency.

Page 3, line 14, please add the following header:

Summary of the Invention

Page 7, line 26, please add the following header:

Brief Description of the Drawings

Page 9, line 1, please add the following header:

Detailed Description